



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



JAN 08 2015

Mr. David Kandolha
Ampersand Chowchilla Biomass, LLC
P.O. Box 298
Chowchilla, Ca 93610

**Re: Notice of Minor Title V Permit Modification
District Facility # C-6923
Project # C-1142390**

Dear Mr. Kandolha:

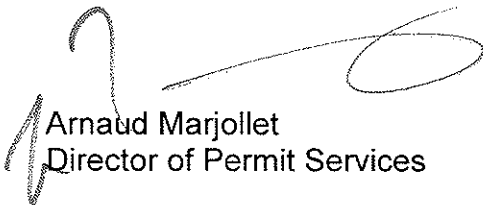
Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to incorporate recently issued C-6923-3-8 into the Title V operating permit. The facility is proposing to replace two drop chutes that introduce fuel to the combustion chamber with four air-assisted stokers.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued C-6923-3-8, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

TITLE V APPLICATION REVIEW

Minor Modification
Project #: C-1142390

Engineer: Vanesa Gonzalez
Date: January 6, 2015

Facility Number: C-6923
Facility Name: Ampersand Chowchilla Biomass LLC
Mailing Address: P O Box 298
Chowchilla, Ca 93610

Contact Name: David Kandolha
Phone: (559) 665-0807 ext 107

Responsible Official: David Kandolha
Title: Manager

I. PROPOSAL

Ampersand Chowchilla Biomass LLC is proposing a Title V minor permit modification to incorporate the recently issued C-6923-7-8 into the Title V operating permit. The facility is proposing to replace two drop chutes that introduce fuel to the combustion chamber with four air-assisted stokers.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

The facility is located at 16457 Avenue 24 1/2 in Chowchilla, CA.

III. EQUIPMENT DESCRIPTION

C-6923-3-9: 185 MMBTU/HR ENERGY PRODUCTS OF IDAHO (EPI) BIOMASS-FIRED FLUIDIZED BUBBLING BED COMBUSTOR FED BY FOUR AIR-ASSISTED STOCKERS WITH ONE 10 MMBTU/HR NATURAL GAS-FIRED PREHEAT BURNER POWERING A 12.5 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM WITH AN AUTOMATED AMMONIA

INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE
INJECTION SYSTEM, A MULTICLONE, AND A PULSE JET BAGHOUSE

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

The facility is proposing to replace the two drop chutes that introduce fuel to the combustion chamber with four air-assisted stokers. The four air-assisted stokers will more evenly distribute the fuel along the top of the bubbling sand. Since the stokers are air-assisted, the finer particles in the fuel will not separate from the fuel stream and be caught in the vapor space as they are with the gravity fed system it's replacing. Spreading the fuel over the bubbling sand more evenly and keeping the finer particles entrained with the larger particles of fuel will increase the uniformity of heat throughout the chamber. Thus, reducing spikes in formation of thermal NO_x.

Current permit conditions 1 through 50 have been included as condition 1 through 50 of the draft permit requirements.

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which

the source would otherwise be subject. Such terms and conditions include;

- a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
 6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

VIII. ATTACHMENTS

- A. Proposed Modified Title V Operating Permit No. C-6923-3-9
- B. Authorities to Construct No. C-6923-3-8
- C. Application
- D. Previous Title V Operating Permit No. C-6923-3-7

ATTACHMENT A

Proposed Modified Title V Operating Permit No.
C-6923-3-9

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6923-3-9

EXPIRATION DATE: 04/30/2016

EQUIPMENT DESCRIPTION:

185 MMBTU/HR ENERGY PRODUCTS OF IDAHO (EPI) BIOMASS-FIRED FLUIDIZED BUBBLING BED COMBUSTOR FED BY FOUR AIR-ASSISTED STOCKERS WITH ONE 10 MMBTU/HR NATURAL GAS-FIRED PREHEAT BURNER POWERING A 12.5 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE INJECTION SYSTEM, A MULTICLONE, AND A PULSE JET BAGHOUSE

PERMIT UNIT REQUIREMENTS

1. Operating schedule of the main combustor shall not exceed 337 days per year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201 and 40 CFR 63.11205(a) and 40 CFR 64] Federally Enforceable Through Title V Permit
6. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The differential pressure gauge reading range shall be maintained between 0.5" and 8" water column. [District Rule 2201 and 40 CFR 64] Federally Enforceable Through Title V Permit
8. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201 and 40 CFR 64] Federally Enforceable Through Title V Permit
9. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The applicant shall install and maintain an operational ammonia volume flow-rate indicator for the selective non-catalytic reduction (SNCR) ammonia injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
11. No later than 30 days following restart of the facility, the applicant shall install, maintain, and operate an automated ammonia injection system in the selective non-catalytic reduction (SNCR) system. The automated mode may be overridden by the facility operator as necessary to maintain compliance with the emission limits listed within this permit. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.b, issued February 14, 2011] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. No later than 90 days following restart of the facility, the applicant shall install, maintain, and operate a stack gas flow monitoring system. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.a, issued February 14, 2011] Federally Enforceable Through Title V Permit
13. The applicant shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO_x, SO_x, CO, and O₂ concentration and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. The CEM systems shall also be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c) and 40 CFR 60.13. [District Rules 1080, 2201, 4352, and 40 CFR 64] Federally Enforceable Through Title V Permit
14. The applicant shall install, maintain, and operate a continuous opacity monitor (COM) and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 2201 and 40 CFR 60.48b(a) and 40 CFR 64] Federally Enforceable Through Title V Permit
15. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
16. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
17. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
18. Audits (CGAs) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
19. Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Within 90 days following restart of the facility, the CEM system shall be operated and maintained in accordance with the operation and maintenance procedures identified in the continuous emission monitoring system quality assurance/quality control plan. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.c, issued February 14, 2011] Federally Enforceable Through Title V Permit
21. The preheat burner shall be used during start-up to reach the solid fuel ignition temperature throughout the combustor before feeding any solid fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
22. "Startup" is the period of time during which the boiler is heated to operating temperature at steady state load from a lower temperature, not to exceed 96 hours. If curing of the refractory is required after furnace repair or modification, startup time may be extended to no longer than 192 hours. "Shutdown" is the period of time during which the boiler is allowed to cool from its operating temperature at steady state load to a lower temperature, not to exceed 12 hours. [District Rule 4352] Federally Enforceable Through Title V Permit
23. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO_x - 14.8 lb/hr or 0.08 lb/MMBtu, SO_x - 7.40 lb/hr or 0.04 lb/MMBtu, PM₁₀ - 7.40 lb/hr or 0.04 lb/MMBtu, CO - 10.55 lb/hr or 72 ppmv @ 3% O₂ (equivalent to 0.057 lb/MMBtu), or VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO_x (as NO₂) and CO emission limits are based on 24 hour rolling averages. SO_x emission limits are based on 3 hour rolling averages. [District Rules 2201, 4352, and 4801] Federally Enforceable Through Title V Permit
24. The ammonia (NH₃) emissions shall not exceed 85 ppmv @ 3% O₂ (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4352] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. Emissions from the preheat burner shall not exceed any of the following limits: NO_x - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
26. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the preheat burner shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Maximum natural gas fuel usage by the preheat burner shall not exceed 120,000 scf/day or 1,200,000 scf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing to measure the NO_x, SO_x, PM₁₀, CO, VOC, and NH₃ emission rates (lb/hr, lb/MMBtu and/or ppmvd @ 3% O₂) for the fluidized bubbling bed combustor shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
30. All emission measurements shall be made with the unit operating at condition representative of normal operations. No compliance shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352] Federally Enforceable Through Title V Permit
31. Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, SO_x - EPA Method 6 or ARB Method 100, PM₁₀ - EPA Method 5 (front half and back half) or 201 and 202a, CO (ppmv) - EPA Method 10 or ARB Method 100, CO₂ - EPA Method 3 or ARB Method 100, VOC - EPA Method 18 or 25 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, ammonia - BAAQMD ST-1B, Stack Gas Flow Rate - EPA Method 2, Moisture Content - EPA Method 4, Fuel Heating Value - ASTM Method D2015-85 or E711. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081, 4001, and 4352] Federally Enforceable Through Title V Permit
33. No owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood, (2) 86 ng/J (0.20 lb/million Btu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood, (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and (iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less. [40 CFR 60.43b(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AMPERSAND CHOWCHILLA BIOMASS LLC

Location: 16457 AVENUE 24-1/2, CHOWCHILLA, CA

C-6923-3-9 : Jan 6 2015 4:31PM - GONZALEV

34. No owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input, (i) If the affected facility combusts only municipal-type solid waste, or (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less. (2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less, (ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less, (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and (iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986. [40 CFR 60.43b(d)] Federally Enforceable Through Title V Permit
35. No owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43b(f)] Federally Enforceable Through Title V Permit
36. The particulate matter emission standards and opacity limits under 40 CFR 60.43b apply at all times except during periods of startup, shutdown, or malfunction. [40 CFR 60.46b(a)] Federally Enforceable Through Title V Permit
37. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel combusted for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
38. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) and 40 CFR 64] Federally Enforceable Through Title V Permit
39. The owner or operator shall submit reports of excess emissions and monitoring system downtime for opacity, in accordance with 40 CFR 60.7(c) and (d), on a semi-annual basis. For the purpose of reports required under 40 CFR Part 60.7(c), periods of excess emission and monitor downtime that shall be reported are defined in 40 CFR 60.49b(h). All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.49b(h), 60.49b(w) and 40 CFR 64] Federally Enforceable Through Title V Permit
40. The owner of operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v) and 40 CFR 64] Federally Enforceable Through Title V Permit
41. Upon detecting any excursion from the acceptable range of baghouse differential pressure readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. If the daily average baghouse differential pressure reading is not within the acceptable established range for two consecutive days, permittee shall notify the APCO of such exceedance within 96 hours. [40 CFR 64.7] Federally Enforceable Through Title V Permit
42. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64.8. [40 CFR 64.7 and 40 CFR 64.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

43. Permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions; nature and cause of excess (averaging period used for data reporting shall correspond to the averaging period for each respective emission standard); corrective actions taken and preventive measures adopted; applicable time and date of each period during a CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred, and reports on opacity monitors giving the number of three minute periods during which the average opacity exceeded the standard for each hour of operation. The averaged may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements per minute. Any time exempted shall be considered before determining the excess averages of opacity. [District Rule 1080] Federally Enforceable Through Title V Permit
44. Permittee shall maintain accurate records of continuous emissions monitoring (CEM) results, dates of occurrences and duration of start-up, shutdown, malfunction, performance testing, evaluations, calibrations, checks, adjustments and maintenance, and daily records of natural gas fuel usage. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
45. The owner/operator shall maintain an operating log that includes the type and quantity of fuel used (hourly and annually) and the hhv of each fuel as determined by District Rule 4352, section 6.4 (as amended 05/18/06), or as certified by a third party fuel supplier. [District Rule 4352] Federally Enforceable Through Title V Permit
46. The owner/operator shall maintain an operating log that includes the number of days of operation of the fluidized bed combustor and daily and annual natural gas usage of the preheat burner. [District Rule 1070] Federally Enforceable Through Title V Permit
47. By the applicable due date specified in 40 CFR 63, Subpart JJJJJ and every two years thereafter, permittee shall conduct a performance tune-up of the boiler in accordance with 40 CFR 63.11223(b). Permittee shall submit a signed statement of the Notification of Compliance Status report that a tune-up of the boiler was completed. [40 CFR 63.11214(b)] Federally Enforceable Through Title V Permit
48. By the applicable due date specified in 40 CFR 63, Subpart JJJJJ, the permittee shall conduct a one-time energy assessment as described in 40 CFR 63, Subpart JJJJJ, Table 2. Permittee shall submit a signed statement in the Notification of Compliance Status report that the energy assessment was completed, and shall submit the energy assessment report upon request. [40 CFR 63.11214(c)] Federally Enforceable Through Title V Permit
49. Permittee shall submit Notification of Compliance Status reports by the applicable due date specified in 40 CFR 63, Subpart JJJJJ. [40 CFR 63.11225(a)(4)] Federally Enforceable Through Title V Permit
50. All records shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

ATTACHMENT B

Authorities to Construct No.
C-6923-3-8



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT


HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: C-6923-3-8

ISSUANCE DATE: 11/13/2014

LEGAL OWNER OR OPERATOR: AMPERSAND CHOWCHILLA BIOMASS LLC
MAILING ADDRESS: 16457 AVENUE 24-1/2
CHOWCHILLA, CA 93610

LOCATION: 16457 AVENUE 24-1/2
CHOWCHILLA, CA

EQUIPMENT DESCRIPTION:

MODIFICATION OF 185 MMBTU/HR ENERGY PRODUCTS OF IDAHO (EPI) BIOMASS-FIRED FLUIDIZED BUBBLING BED COMBUSTOR WITH ONE 10 MMBTU/HR NATURAL GAS-FIRED PREHEAT BURNER POWERING A 12.5 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE INJECTION SYSTEM, A MULTICLONE, AND A PULSE JET BAGHOUSE. MODIFY COMBUSTOR BIOMASS FEEDING SYSTEM FROM TWO DROP CHUTES TO FOUR AIR-ASSISTED STOKERS

CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Operating schedule of the main combustor shall not exceed 337 days per year. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201 and 40 CFR 63.11205(a) and 40 CFR 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services
CERTIFIED: Nov 13 2014 8:08AM - GONZALEZ Joint Inspection NOT Required

7. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The differential pressure gauge reading range shall be maintained between 0.5" and 8" water column. [District Rule 2201 and 40 CFR 64] Federally Enforceable Through Title V Permit
9. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201 and 40 CFR 64] Federally Enforceable Through Title V Permit
10. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The applicant shall install and maintain an operational ammonia volume flow-rate indicator for the selective non-catalytic reduction (SNCR) ammonia injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
12. No later than 30 days following restart of the facility, the applicant shall install, maintain, and operate an automated ammonia injection system in the selective non-catalytic reduction (SNCR) system. The automated mode may be overridden by the facility operator as necessary to maintain compliance with the emission limits listed within this permit. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.b, issued February 14, 2011] Federally Enforceable Through Title V Permit
13. No later than 90 days following restart of the facility, the applicant shall install, maintain, and operate a stack gas flow monitoring system. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.a, issued February 14, 2011] Federally Enforceable Through Title V Permit
14. The applicant shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO_x, SO_x, CO, and O₂ concentration and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. The CEM systems shall also be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c) and 40 CFR 60.13. [District Rules 1080, 2201, 4352, and 40 CFR 64] Federally Enforceable Through Title V Permit
15. The applicant shall install, maintain, and operate a continuous opacity monitor (COM) and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 2201 and 40 CFR 60.48b(a) and 40 CFR 64] Federally Enforceable Through Title V Permit
16. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
17. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
18. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
19. Audits (CGAs) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Within 90 days following restart of the facility, the CEM system shall be operated and maintained in accordance with the operation and maintenance procedures identified in the continuous emission monitoring system quality assurance/quality control plan. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.c, issued February 14, 2011] Federally Enforceable Through Title V Permit
22. The preheat burner shall be used during start-up to reach the solid fuel ignition temperature throughout the combustor before feeding any solid fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
23. "Startup" is the period of time during which the boiler is heated to operating temperature at steady state load from a lower temperature, not to exceed 96 hours. If curing of the refractory is required after furnace repair or modification, startup time may be extended to no longer than 192 hours. "Shutdown" is the period of time during which the boiler is allowed to cool from its operating temperature at steady state load to a lower temperature, not to exceed 12 hours. [District Rule 4352] Federally Enforceable Through Title V Permit
24. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO_x - 14.8 lb/hr or 0.08 lb/MMBtu, SO_x - 7.40 lb/hr or 0.04 lb/MMBtu, PM₁₀ - 7.40 lb/hr or 0.04 lb/MMBtu, CO - 10.55 lb/hr or 72 ppmv @ 3% O₂ (equivalent to 0.057 lb/MMBtu), or VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO_x (as NO₂) and CO emission limits are based on 24 hour rolling averages. SO_x emission limits are based on 3 hour rolling averages. [District Rules 2201, 4352, and 4801] Federally Enforceable Through Title V Permit
25. The ammonia (NH₃) emissions shall not exceed 85 ppmv @ 3% O₂ (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
26. Emissions from the preheat burner shall not exceed any of the following limits: NO_x - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
27. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the preheat burner shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Maximum natural gas fuel usage by the preheat burner shall not exceed 120,000 scf/day or 1,200,000 scf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
29. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
30. Source testing to measure the NO_x, SO_x, PM₁₀, CO, VOC, and NH₃ emission rates (lb/hr, lb/MMBtu and/or ppmv @ 3% O₂) for the fluidized bubbling bed combustor shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
31. All emission measurements shall be made with the unit operating at condition representative of normal operations. No compliance shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352] Federally Enforceable Through Title V Permit
32. Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, SO_x - EPA Method 6 or ARB Method 100, PM₁₀ - EPA Method 5 (front half and back half) or 201 and 202a, CO (ppmv) - EPA Method 10 or ARB Method 100, CO₂ - EPA Method 3 or ARB Method 100, VOC - EPA Method 18 or 25 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, ammonia - BAAQMD ST-1B, Stack Gas Flow Rate - EPA Method 2, Moisture Content - EPA Method 4, Fuel Heating Value - ASTM Method D2015-85 or E711. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081, 4001, and 4352] Federally Enforceable Through Title V Permit
34. No owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood, (2) 86 ng/J (0.20 lb/million Btu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood, (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and (iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less. [40 CFR 60.43b(c)] Federally Enforceable Through Title V Permit
35. No owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input, (i) If the affected facility combusts only municipal-type solid waste, or (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less. (2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less, (ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less, (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and (iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986. [40 CFR 60.43b(d)] Federally Enforceable Through Title V Permit
36. No owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43b(f)] Federally Enforceable Through Title V Permit
37. The particulate matter emission standards and opacity limits under 40 CFR 60.43b apply at all times except during periods of startup, shutdown, or malfunction. [40 CFR 60.46b(a)] Federally Enforceable Through Title V Permit
38. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel combusted for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
39. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) and 40 CFR 64] Federally Enforceable Through Title V Permit
40. The owner or operator shall submit reports of excess emissions and monitoring system downtime for opacity, in accordance with 40 CFR 60.7(c) and (d), on a semi-annual basis. For the purpose of reports required under 40 CFR Part 60.7(c), periods of excess emission and monitor downtime that shall be reported are defined in 40 CFR 60.49b(h). All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.49b(h), 60.49b(w) and 40 CFR 64] Federally Enforceable Through Title V Permit

41. The owner of operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v) and 40 CFR 64] Federally Enforceable Through Title V Permit
42. Upon detecting any excursion from the acceptable range of baghouse differential pressure readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. If the daily average baghouse differential pressure reading is not within the acceptable established range for two consecutive days, permittee shall notify the APCO of such exceedance within 96 hours. [40 CFR 64.7] Federally Enforceable Through Title V Permit
43. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64.8. [40 CFR 64.7 and 40 CFR 64.8] Federally Enforceable Through Title V Permit
44. Permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions; nature and cause of excess (averaging period used for data reporting shall correspond to the averaging period for each respective emission standard); corrective actions taken and preventive measures adopted; applicable time and date of each period during a CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred, and reports on opacity monitors giving the number of three minute periods during which the average opacity exceeded the standard for each hour of operation. The averaged may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements per minute. Any time exempted shall be considered before determining the excess averages of opacity. [District Rule 1080] Federally Enforceable Through Title V Permit
45. Permittee shall maintain accurate records of continuous emissions monitoring (CEM) results, dates of occurrences and duration of start-up, shutdown, malfunction, performance testing, evaluations, calibrations, checks, adjustments and maintenance, and daily records of natural gas fuel usage. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
46. The owner/operator shall maintain an operating log that includes the type and quantity of fuel used (hourly and annually) and the hhv of each fuel as determined by District Rule 4352, section 6.4 (as amended 05/18/06), or as certified by a third party fuel supplier. [District Rule 4352] Federally Enforceable Through Title V Permit
47. The owner/operator shall maintain an operating log that includes the number of days of operation of the fluidized bed combustor and daily and annual natural gas usage of the preheat burner. [District Rule 1070] Federally Enforceable Through Title V Permit
48. By the applicable due date specified in 40 CFR 63, Subpart JJJJJJ and every two years thereafter, permittee shall conduct a performance tune-up of the boiler in accordance with 40 CFR 63.11223(b). Permittee shall submit a signed statement of the Notification of Compliance Status report that a tune-up of the boiler was completed. [40 CFR 63.11214(b)] Federally Enforceable Through Title V Permit
49. By the applicable due date specified in 40 CFR 63, Subpart JJJJJJ, the permittee shall conduct a one-time energy assessment as described in 40 CFR 63, Subpart JJJJJJ, Table 2. Permittee shall submit a signed statement in the Notification of Compliance Status report that the energy assessment was completed, and shall submit the energy assessment report upon request. [40 CFR 63.11214(c)] Federally Enforceable Through Title V Permit
50. Permittee shall submit Notification of Compliance Status reports by the applicable due date specified in 40 CFR 63, Subpart JJJJJJ. [40 CFR 63.11225(a)(4)] Federally Enforceable Through Title V Permit
51. All records shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

ATTACHMENT C

Application



San Joaquin Valley Air Pollution Control District

www.valleyair.org

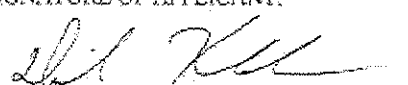
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Permit Application For:

Permits Services

SJVAPCD

☐ ADMINISTRATIVE AMENDMENT ☒ MINOR MODIFICATION ☐ SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: Ampersand Chowchilla Biomass, LLC		
2. MAILING ADDRESS: STREET/P.O. BOX: 16457 Avenue 24-1/2 / PO Box 298 CITY: Chowchilla STATE: CA 9-DIGIT ZIP CODE: 93610		
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: 16457 Avenue 24-1/2 CITY: Chowchilla SECTION TOWNSHIP RANGE		INSTALLATION DATE: April 2015
4. GENERAL NATURE OF BUSINESS: Biomass boiler; electricity generation		
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) Modification Amendment to Permit No. C-6923-3-7. Please see attached sheet for the modification description.		
6. TYPE OR PRINT NAME OF APPLICANT: David Kandolha		TITLE OF APPLICANT: Manager
7. SIGNATURE OF APPLICANT: 	DATE: 8-14-14	PHONE: (559) 665-0807 X107 FAX: (559) 665-0817 EMAIL: mdecastro@chowchilla.com

For APCD Use Only:

DATE/STAMP	RECEIVED	FILING FEE RECEIVED:	\$ 19.00 (90.00)	CHECK#:	9240
	AUG 18 2014	DATE PAID:	8/15/2014		
FINANCE	SIVUAPCD	PROJECT NO:	C-1142390	FACILITY ID:	C-6923

REQUESTED MODIFICATION - CHOWCHILLA

1. Please modify Permit No. C-6923-3-7 Equipment Description – add air assisted fuel stoker.

Existing Equipment Description:

185 MMBTU/HR ENERGY PRODUCTS OF IDAHO (EPI) BIOMASS-FIRED FLUIDIZED BUBBLING BED COMBUSTOR WITH ONE 10 MMBTU/HR NATURAL GAS-FIRED PREHEAT BURNER POWERING A 12.5 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE INJECTION SYSTEM, A MULTICLONE, AND A PULSE JET BAGHOUSE.

Modification Requested:

185 MMBTU/HR ENERGY PRODUCTS OF IDAHO (EPI) BIOMASS-FIRED FLUIDIZED BUBBLING BED COMBUSTOR BEING FED WITH BIOMASS FUEL BY FOUR AIR-ASSISTED STOKERS AND WITH ONE 10 MMBTU/HR NATURAL GAS-FIRED PREHEAT BURNER POWERING A 12.5 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE INJECTION SYSTEM, A MULTICLONE, AND A PULSE JET BAGHOUSE.

JUSTIFICATION FOR THE MODIFICATION

Biomass fuel is currently being fed into the fluidized bubbling bed combustor through two drop chutes introducing the solid fuel more than 20 feet above the bubbling sand bed. This method of fuel injection allows fuel of heavier density or larger in size to spread out in the surface of the bubbling sand bed by gravity but entrains the finer or lighter material in the upper chamber (vapor space) of the combustor. This separation of fuel particles in the different zones of the combustor causes temperatures to swing widely making it difficult for optimum combustion and emissions control. Furthermore, relying of the gravity drop is not an efficient means of uniformly distributing fuel across the surface of the bed.

The proposed stoker feed system will introduce fuel closer to the bubbling bed, about 4 to 5 feet. Assisted with stoker air (diverted from the forced draft, FD, fan) and deflected by articulating stoker plate, fuel is spread across the bed more uniformly. The finer and lighter fuel particles are combusted at or near the bed level. Thus, temperature spikes in the vapor space, which produce thermal NOx, are minimized. Additionally, instead of just two injection points, fuel will be introduced along the width of the combustor at four locations which further distributes fuel more evenly.

With the improved fuel distribution across the surface of the bubbling bed, optimum fuel combustion can be better achieved and improved emission control will result.

An elevation schematic of the existing and proposed fuel injection system is shown of Dwg #1.

Also attached are detailed drawings of the air-assisted fuel injection system.



San Joaquin Valley
Unified Air Pollution Control District



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- ☐ SIGNIFICANT PERMIT MODIFICATION ☐ ADMINISTRATIVE
☒ MINOR PERMIT MODIFICATION ☐ AMENDMENT

COMPANY NAME: Ampersand Chowchilla Biomass, LLC	FACILITY ID: C-6923
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Global Ampersand	
3. Agent to the Owner: David Kandolha	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- ☒ Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- ☒ Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

David Kandolha
Signature of Responsible Official

8-14-14
Date

David Kandolha
Name of Responsible Official (please print)

Manager
Title of Responsible Official (please print)

ATTACHMENT D

Previous Title V Operating Permit No.
C-6923-3-7

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-6923-3-7

EXPIRATION DATE: 04/30/2016

EQUIPMENT DESCRIPTION:

185 MMBTU/HR ENERGY PRODUCTS OF IDAHO (EPI) BIOMASS-FIRED FLUIDIZED BUBBLING BED COMBUSTOR WITH ONE 10 MMBTU/HR NATURAL GAS-FIRED PREHEAT BURNER POWERING A 12.5 MW STEAM TURBINE GENERATOR, SERVED BY A SELECTIVE NON-CATALYTIC REDUCTION (SNCR) SYSTEM WITH AN AUTOMATED AMMONIA INJECTION SYSTEM, A LIMESTONE/SODIUM BICARBONATE INJECTION SYSTEM, A MULTICLONE, AND A PULSE JET BAGHOUSE

PERMIT UNIT REQUIREMENTS

1. Operating schedule of the main combustor shall not exceed 337 days per year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The baghouse shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Material removed from the dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201 and 40 CFR 63.11205(a) and 40 CFR 64] Federally Enforceable Through Title V Permit
6. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The differential pressure gauge reading range shall be maintained between 0.5" and 8" water column. [District Rule 2201 and 40 CFR 64] Federally Enforceable Through Title V Permit
8. Differential operating pressure shall be monitored and recorded on each day that the baghouse operates. [District Rule 2201 and 40 CFR 64] Federally Enforceable Through Title V Permit
9. Records of all maintenance of the baghouse, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The applicant shall install and maintain an operational ammonia volume flow-rate indicator for the selective non-catalytic reduction (SNCR) ammonia injection system. [District Rule 2201] Federally Enforceable Through Title V Permit
11. No later than 30 days following restart of the facility, the applicant shall install, maintain, and operate an automated ammonia injection system in the selective non-catalytic reduction (SNCR) system. The automated mode may be overridden by the facility operator as necessary to maintain compliance with the emission limits listed within this permit. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.b, issued February 14, 2011] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. No later than 90 days following restart of the facility, the applicant shall install, maintain, and operate a stack gas flow monitoring system. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.a, issued February 14, 2011] Federally Enforceable Through Title V Permit
13. The applicant shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO_x, SO_x, CO, and O₂ concentration and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. The CEM systems shall also be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c) and 40 CFR 60.13. [District Rules 1080, 2201, 4352, and 40 CFR 64] Federally Enforceable Through Title V Permit
14. The applicant shall install, maintain, and operate a continuous opacity monitor (COM) and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080 and 2201 and 40 CFR 60.48b(a) and 40 CFR 64] Federally Enforceable Through Title V Permit
15. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
16. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
17. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
18. Audits (CGAs) of continuous emission monitors shall be conducted quarterly, except during quarters in which a relative accuracy test audit (RATA) is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
19. Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Within 90 days following restart of the facility, the CEM system shall be operated and maintained in accordance with the operation and maintenance procedures identified in the continuous emission monitoring system quality assurance/quality control plan. [District Rule 1080 and US EPA and SJVUAPCD Consent Decree Case No. 1:11-CV-00242-LJO-DLB, Section V.13.c, issued February 14, 2011] Federally Enforceable Through Title V Permit
21. The preheat burner shall be used during start-up to reach the solid fuel ignition temperature throughout the combustor before feeding any solid fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
22. "Startup" is the period of time during which the boiler is heated to operating temperature at steady state load from a lower temperature, not to exceed 96 hours. If curing of the refractory is required after furnace repair or modification, startup time may be extended to no longer than 192 hours. "Shutdown" is the period of time during which the boiler is allowed to cool from its operating temperature at steady state load to a lower temperature, not to exceed 12 hours. [District Rule 4352] Federally Enforceable Through Title V Permit
23. Emissions from the fluidized bed combustor unit, except during periods of startup and shutdown, shall not exceed any of the following limits: NO_x - 14.8 lb/hr or 0.08 lb/MMBtu, SO_x - 7.40 lb/hr or 0.04 lb/MMBtu, PM₁₀ - 7.40 lb/hr or 0.04 lb/MMBtu, CO - 10.55 lb/hr or 72 ppmv @ 3% O₂ (equivalent to 0.057 lb/MMBtu), or VOC - 0.93 lb/hr or 0.005 lb/MMBtu. NO_x (as NO₂) and CO emission limits are based on 24 hour rolling averages. SO_x emission limits are based on 3 hour rolling averages. [District Rules 2201, 4352, and 4801] Federally Enforceable Through Title V Permit
24. The ammonia (NH₃) emissions shall not exceed 85 ppmv @ 3% O₂ (equivalent to 0.041 lb/MMBtu) over a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit

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25. Emissions from the preheat burner shall not exceed any of the following limits: NO_x - 0.1 lb/MMBtu, SO_x - 0.00285 lb/MMBtu, PM₁₀ - 0.0076 lb/MMBtu, CO - 0.084 lb/MMBtu, or VOC - 0.0055 lb/MMBtu. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
26. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the preheat burner shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Maximum natural gas fuel usage by the preheat burner shall not exceed 120,000 scf/day or 1,200,000 scf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO_x, CO, and O₂ analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing to measure the NO_x, SO_x, PM₁₀, CO, VOC, and NH₃ emission rates (lb/hr, lb/MMBtu and/or ppmvd @ 3% O₂) for the fluidized bubbling bed combustor shall be conducted at least once every twelve months. [District Rules 1081 and 4352] Federally Enforceable Through Title V Permit
30. All emission measurements shall be made with the unit operating at condition representative of normal operations. No compliance shall be established within two hours after a continuous period in which fuel flow to the unit is zero, or is shut off for 30 minutes or longer. [District Rule 4352] Federally Enforceable Through Title V Permit
31. Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The following test methods shall be used: NO_x (ppmv) - EPA Method 7E or ARB Method 100, NO_x (lb/MMBtu) - EPA Method 19, SO_x - EPA Method 6 or ARB Method 100, PM₁₀ - EPA Method 5 (front half and back half) or 201 and 202a, CO (ppmv) - EPA Method 10 or ARB Method 100, CO₂ - EPA Method 3 or ARB Method 100, VOC - EPA Method 18 or 25 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, ammonia - BAAQMD ST-1B, Stack Gas Flow Rate - EPA Method 2, Moisture Content - EPA Method 4, Fuel Heating Value - ASTM Method D2015-85 or E711. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. The request to utilize EPA approved alternative source testing methods must be submitted in writing and written approval received from the District prior to the submission of the source test plan. [District Rules 1081, 4001, and 4352] Federally Enforceable Through Title V Permit
33. No owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood. (2) 86 ng/J (0.20 lb/million Btu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood, (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood, and (iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less. [40 CFR 60.43b(c)] Federally Enforceable Through Title V Permit

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34. No owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits: (1) 43 ng/J (0.10 lb/million Btu) heat input, (i) If the affected facility combusts only municipal-type solid waste, or (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less. (2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and (i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less, (ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less, (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and (iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986. [40 CFR 60.43b(d)] Federally Enforceable Through Title V Permit
35. No owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43b(f)] Federally Enforceable Through Title V Permit
36. The particulate matter emission standards and opacity limits under 40 CFR 60.43b apply at all times except during periods of startup, shutdown, or malfunction. [40 CFR 60.46b(a)] Federally Enforceable Through Title V Permit
37. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for each fuel combusted for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)] Federally Enforceable Through Title V Permit
38. The owner or operator shall maintain records of opacity. [40 CFR 60.49b(f) and 40 CFR 64] Federally Enforceable Through Title V Permit
39. The owner or operator shall submit reports of excess emissions and monitoring system downtime for opacity, in accordance with 40 CFR 60.7(c) and (d), on a semi-annual basis. For the purpose of reports required under 40 CFR Part 60.7(c), periods of excess emission and monitor downtime that shall be reported are defined in 40 CFR 60.49b(h). All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.49b(h), 60.49b(w) and 40 CFR 64] Federally Enforceable Through Title V Permit
40. The owner of operator may submit electronic quarterly reports for opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v) and 40 CFR 64] Federally Enforceable Through Title V Permit
41. Upon detecting any excursion from the acceptable range of baghouse differential pressure readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. If the daily average baghouse differential pressure reading is not within the acceptable established range for two consecutive days, permittee shall notify the APCO of such exceedance within 96 hours. [40 CFR 64.7] Federally Enforceable Through Title V Permit
42. If the District or EPA determines that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR 64.8. [40 CFR 64.7 and 40 CFR 64.8] Federally Enforceable Through Title V Permit

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Facility Name: AMPERSAND CHOWCHILLA BIOMASS LLC

Location: 16457 AVENUE 24-1/2, CHOWCHILLA, CA

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43. Permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions; nature and cause of excess (averaging period used for data reporting shall correspond to the averaging period for each respective emission standard); corrective actions taken and preventive measures adopted; applicable time and date of each period during a CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; a negative declaration when no excess emissions occurred, and reports on opacity monitors giving the number of three minute periods during which the average opacity exceeded the standard for each hour of operation. The averaged may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements per minute. Any time exempted shall be considered before determining the excess averages of opacity. [District Rule 1080] Federally Enforceable Through Title V Permit
44. Permittee shall maintain accurate records of continuous emissions monitoring (CEM) results, dates of occurrences and duration of start-up, shutdown, malfunction, performance testing, evaluations, calibrations, checks, adjustments and maintenance, and daily records of natural gas fuel usage. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
45. The owner/operator shall maintain an operating log that includes the type and quantity of fuel used (hourly and annually) and the hhv of each fuel as determined by District Rule 4352, section 6.4 (as amended 05/18/06), or as certified by a third party fuel supplier. [District Rule 4352] Federally Enforceable Through Title V Permit
46. The owner/operator shall maintain an operating log that includes the number of days of operation of the fluidized bed combustor and daily and annual natural gas usage of the preheat burner. [District Rule 1070] Federally Enforceable Through Title V Permit
47. By the applicable due date specified in 40 CFR 63, Subpart JJJJJ and every two years thereafter, permittee shall conduct a performance tune-up of the boiler in accordance with 40 CFR 63.11223(b). Permittee shall submit a signed statement of the Notification of Compliance Status report that a tune-up of the boiler was completed. [40 CFR 63.11214(b)] Federally Enforceable Through Title V Permit
48. By the applicable due date specified in 40 CFR 63, Subpart JJJJJ, the permittee shall conduct a one-time energy assessment as described in 40 CFR 63, Subpart JJJJJ, Table 2. Permittee shall submit a signed statement in the Notification of Compliance Status report that the energy assessment was completed, and shall submit the energy assessment report upon request. [40 CFR 63.11214(c)] Federally Enforceable Through Title V Permit
49. Permittee shall submit Notification of Compliance Status reports by the applicable due date specified in 40 CFR 63, Subpart JJJJJ. [40 CFR 63.11225(a)(4)] Federally Enforceable Through Title V Permit
50. All records shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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